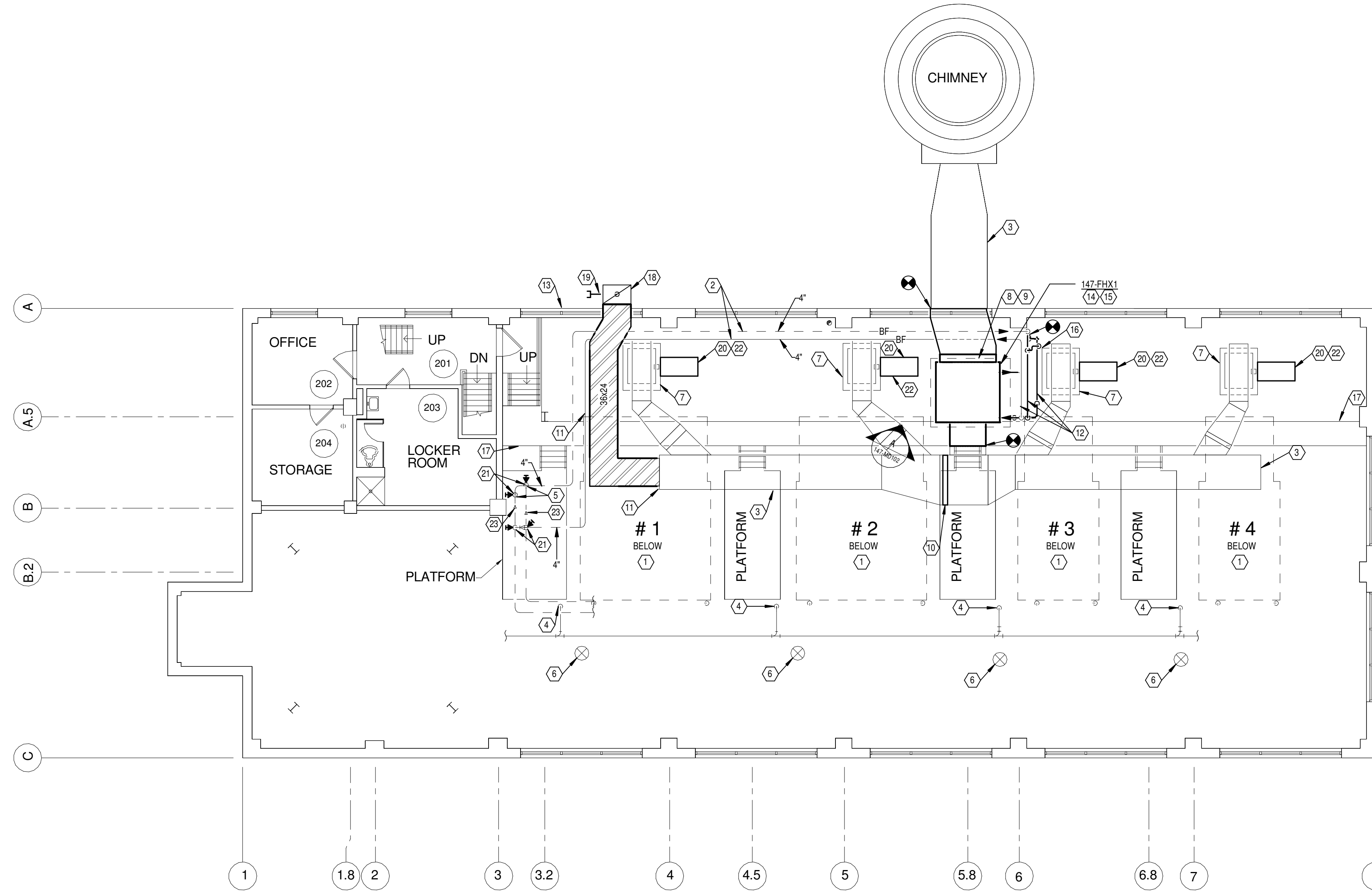




1 PICTURE "A"
N.T.S.



2 SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

- A REFER TO 147-M001 FOR LEGEND, ABBREVIATIONS, AND ADDITIONAL GENERAL NOTES.
- B COORDINATE ALL BOILER SHUTDOWNS CLOSELY WITH THE C.O.R. TEMPORARY BREECING REQUIRED TO ALLOW REMOVAL OF EXISTING STACK ECONOMIZER DURING BOILER OPERATION. COORDINATE CHANGEOVER DATE/TIME AND ANTICIPATED DOWN TIME WELL IN ADVANCE.
- C ALL NEW PIPING, VALVES, ETC. SHALL BE MADE IN AMERICA. ALL PIPING SHALL BE SCHEDULE 40 STEEL.

PLAN NOTES

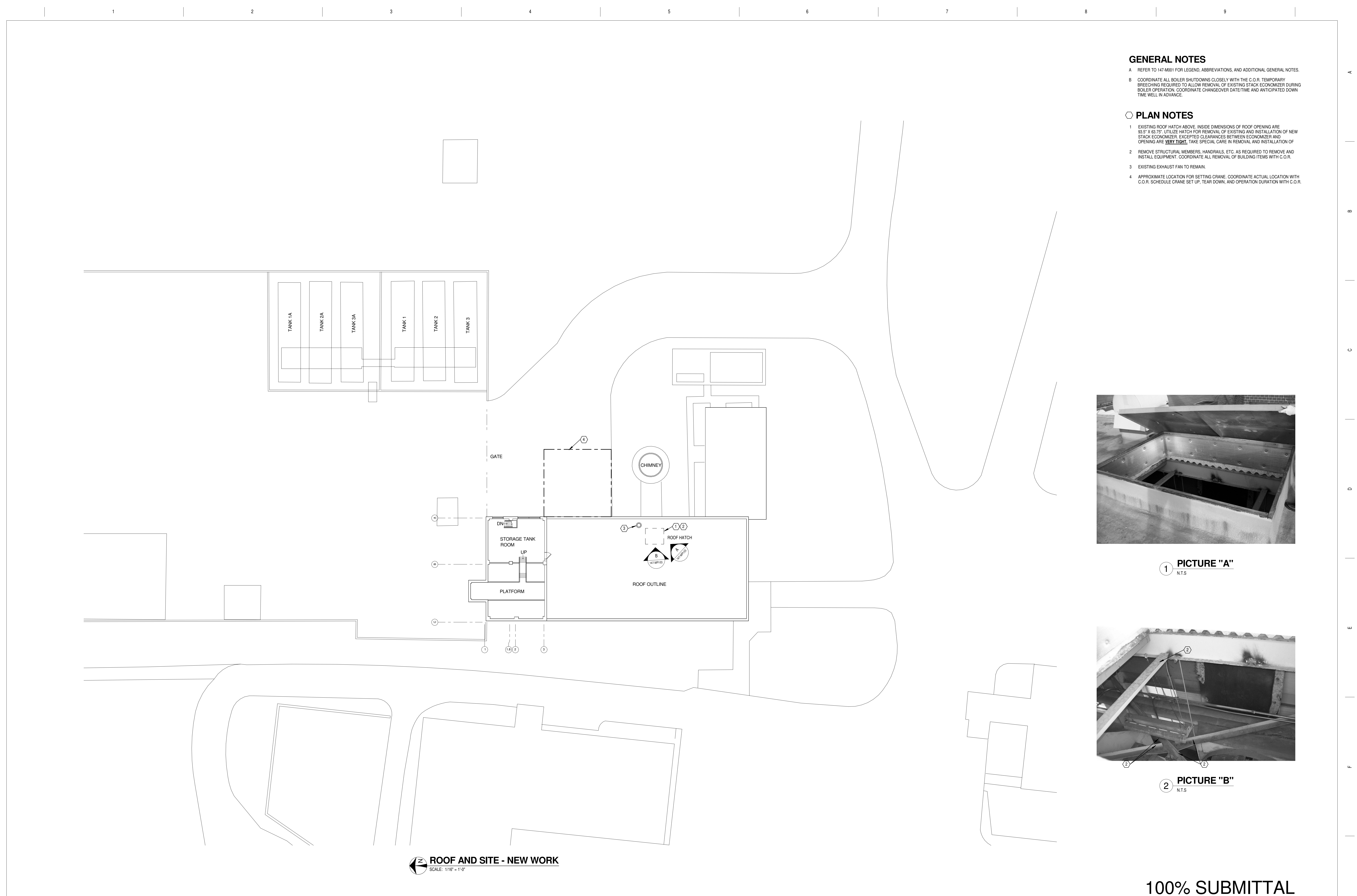
- 1. EXISTING BOILER TO REMAIN.
- 2. EXISTING PIPING TO REMAIN.
- 3. EXISTING BREECING TO REMAIN.
- 4. NATURAL GAS SUPPLY PIPING TO BURNERS BELOW.
- 5. BOILER FEEDWATER PIPING FROM BELOW.
- 6. COMBUSTION AIR INTAKE DUCTWORK FROM ABOVE AND DOWN TO BELOW.
- 7. EXISTING BOILER ID FAN TO REMAIN.
- 8. EXISTING ROOF HATCH ABOVE. INSIDE DIMENSIONS OF ROOF OPENING ARE 93'5" X 63'7". UTILIZE HATCH FOR REMOVAL OF EXISTING AND INSTALLATION OF NEW STACK ECONOMIZER. EXCEPTED CLEARANCES BETWEEN ECONOMIZERS AND OPENING ARE **VERY TIGHT**. TAKE SPECIAL CARE IN REMOVAL AND INSTALLATION OF EQUIPMENT.
- 9. REMOVE STRUCTURAL MEMBERS, HANDRAILS, ETC. AS REQUIRED TO REMOVE AND INSTALL EQUIPMENT. COORDINATE ALL REMOVAL OF BUILDING ITEMS WITH C.O.R.
- 10. PROVIDE TEMPORARY INSULATED BAFFLE, INSIDE OF BREECING, TO ALLOW FOR BOILER OPERATION WHILE NEW ECONOMIZER IS BEING INSTALLED. REMOVE WHEN ECONOMIZER IS INSTALLED.
- 11. REMOVE ACCESS DOOR AND ADD NEW 36"X24" TEMPORARY BREECING. EXTEND THRU WINDOW AND UP TO 8 FT. ABOVE LOW ROOF. REINSTALL ACCESS DOOR AND REMOVE TEMPORARY BREECING WHEN NEW ECONOMIZER IS INSTALLED. TEMPORARY BREECING IS TO BE INSULATED INSIDE THE BUILDING WITH 2" CALCIUM CYCLAMATE.
- 12. REINSTALL BOILER FEEDWATER AND DRAINS THAT WERE REMOVED FOR INSTALLATION OF THE ECONOMIZER.
- 13. REINSTALL WINDOW WHEN TEMPORARY BREECING IS REMOVED. MAINTAIN WATERTIGHT WHILE TEMPORARY BREECING IS IN USE.
- 14. CONNECT NEW ECONOMIZER DAMPER TO EXISTING WIRING.
- 15. NEW ECONOMIZER.
- 16. NEW SAFETY RELIEF VALVE TO BE SUPPLIED WITH ECONOMIZER. UTILIZE DISCHARGE PIPING REMOVED FOR INSTALLATION OF ECONOMIZER.
- 17. METAL GRATE WALKWAY TO ACCESS SECOND FLOOR EQUIPMENT. FIELD VERIFY ALL BUILDING CONSTRAINTS.
- 18. SUPPORT VERTICAL BREECING FROM BUILDING.
- 19. VALVED DRAIN CONNECTION.
- 20. PROVIDE NEW INVERTER DUTY MOTOR CAPABLE OF VARIABLE SPEED OPERATION.
- 21. REMOVE EXISTING 4" ECONOMIZER SUPPLY AND RETURN VALVES FOR REPLACEMENT IN NEW WORK.
- 22. INTEGRATE CONTROL OF VARIABLE SPEED FORCED DRAFT AND INDUCED DRAFT FANS INTO EXISTING BOILER CONTROLS. UTILIZE A 4-20mA CONTROL SIGNAL. PROVIDE A TAG ON THE MOTORS TO INDICATE ACTUAL MOTOR SPEED. COORDINATE ALL CONTROL WORK CLOSELY WITH THE DVMC BOILER CONTROL TECHNICIAN. EACH BOILER WILL REQUIRE APPROXIMATELY (3) DAYS OF TUNING TIME TO ASSURE PROPER OPERATION OF DRAFT CONTROLS.
- 23. REMOVE EXISTING 6" FEEDWATER BYPASS VALVES FOR REPLACEMENT IN NEW WORK.

100% SUBMITTAL

Revisions Date	CONSULTANTS:	PROJECT NO. 2012-04027	ARCHITECT/ENGINEERS:	Drawing Title	Project Title	Project No.
				Heapy Engineering Mechanical Electrical Commissioning Technology <i>Nationally Recognized Leader in Sustainability / LEED</i> 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com	SECOND FLOOR - NEW WORK	VA Project No. 552-13-305 Heapy Project No. 2012-04027 Building Number 147 Drawing Number 147-MP102 Dwg. of
				Approved: CHIEF ENGINEER	Location Dayton, Ohio Date 12/06/2012 Checked DLE Drawn PCW	

12/6/2012 11:37:15 AM

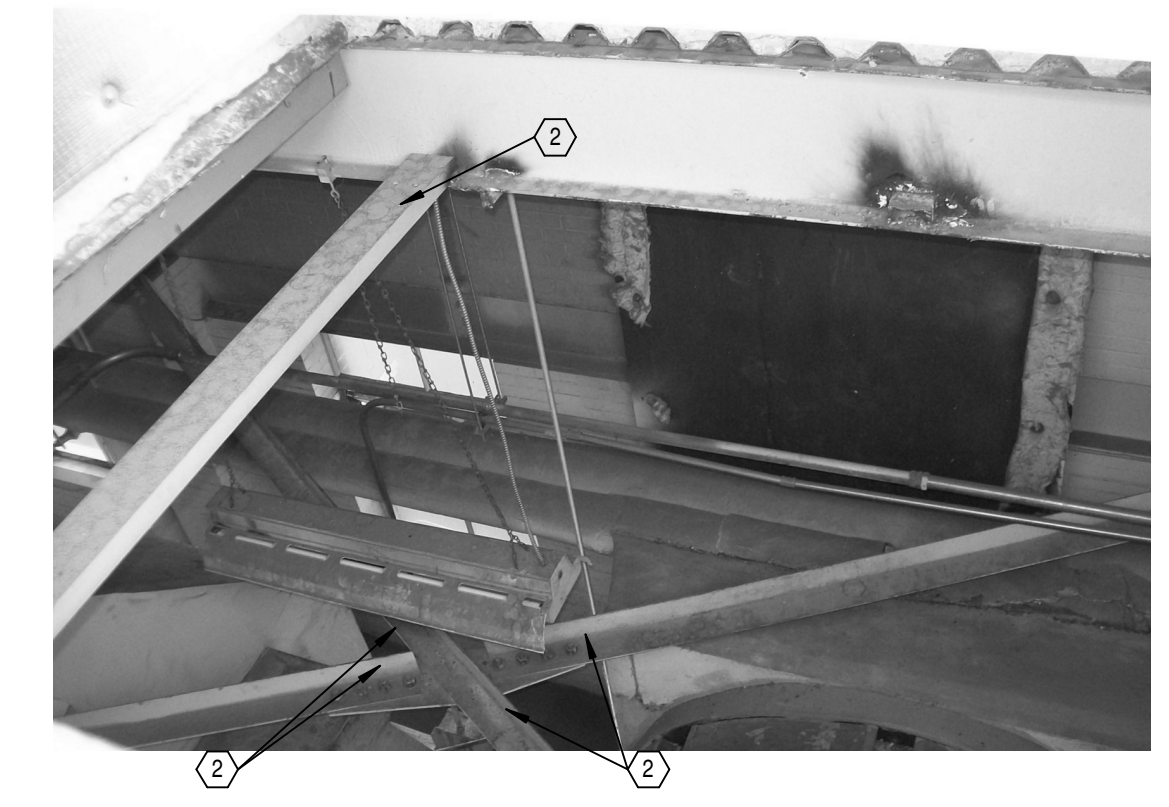
A three inches = one foot
 B one and one-half inches = one foot
 C one inch = one foot
 D three-quarters inch = one foot
 E one-half inch = one foot
 F three-eighths inch = one foot
 one-quarter inch = one foot
 one-eighth inch = one foot



- GENERAL NOTES**
- A REFER TO 147-M001 FOR LEGEND, ABBREVIATIONS, AND ADDITIONAL GENERAL NOTES.
 - B COORDINATE ALL BOILER SHUTDOWNS CLOSELY WITH THE C.O.R. TEMPORARY BREACHING REQUIRED TO ALLOW REMOVAL OF EXISTING STACK ECONOMIZER DURING BOILER OPERATION. COORDINATE CHANGEOVER DATE/TIME AND ANTICIPATED DOWN TIME WELL IN ADVANCE.
- PLAN NOTES**
- 1 EXISTING ROOF HATCH ABOVE. INSIDE DIMENSIONS OF ROOF OPENING ARE 83.5' X 83.75'. UTILIZE HATCH FOR REMOVAL OF EXISTING AND INSTALLATION OF NEW STACK ECONOMIZER. EXCEPTED CLEARANCES BETWEEN ECONOMIZER AND OPENING ARE VERY TIGHT. TAKE SPECIAL CARE IN REMOVAL AND INSTALLATION OF
 - 2 REMOVE STRUCTURAL MEMBERS, HANDRAILS, ETC. AS REQUIRED TO REMOVE AND INSTALL EQUIPMENT. COORDINATE ALL REMOVAL OF BUILDING ITEMS WITH C.O.R.
 - 3 EXISTING EXHAUST FAN TO REMAIN.
 - 4 APPROXIMATE LOCATION FOR SETTING CRANE. COORDINATE ACTUAL LOCATION WITH C.O.R. SCHEDULE CRANE SET UP, TEAR DOWN, AND OPERATION DURATION WITH C.O.R.



1 PICTURE "A"
N.T.S.



2 PICTURE "B"
N.T.S.

ROOF AND SITE - NEW WORK
SCALE: 1/16" = 1'-0"

100% SUBMITTAL

Revisions Date	CONSULTANTS:	PROJECT NO. 2012-04027 	ARCHITECT/ENGINEERS: Heapy Engineering Mechanical Electrical Commissioning Technology <i>Nationally Recognized Leader in Sustainability / LEED</i> 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com	Drawing Title ROOF AND SITE - NEW WORK	Project Title Modernize Boiler Plant B-147	Project No. VA Project No. 552-13-305 Heapy Project No. 2012-04027	Office of Construction and Facilities Management 
	Location Dayton, Ohio	Building Number 147	Drawing Number 147-MP103	Date 12/06/2012	Checked DLE	Drawn PCW	

A
B
C
D
E
F

TECHNOLOGY SYMBOLS

	CEILING MOUNTED WIRELESS ACCESS POINT WITH DATA DROP ABOVE CEILING. PROVIDE 20' COIL IN DATA CABLE TO FACILITATE RELOCATION OF WAP. WAP PROVIDED BY OWNER.
	CONDUIT SLEEVE / FIRE RATED SLEEVE ASSEMBLY THRU WALL (1" Z' SLEEVE UNLESS NOTED OTHERWISE).
	WALL MOUNTED VOICE/DATA OUTLET (1" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT(S) TO ABOVE CORRIDOR CEILING, JACKS, FACEPLATE AND CABLING. REFER TO FACEPLATE DETAILS.
	WALL MOUNTED AV OUTLET (1" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUITS TO ABOVE ACCESSIBLE CEILING. REFER TO FACEPLATE DETAILS. PROVIDE JACKS, FACEPLATE AND CABLING. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION.
	TELECOM BOX AND CONDUIT. REFER TO PLANS.
	WALL MOUNTED PHONE OUTLET (4" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING, JACKS, FACEPLATE AND CABLING. REFER TO FACEPLATE DETAILS.
	WALL MOUNTED AV OUTLET (1" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT. REFER TO FACEPLATE DETAILS. PROVIDE JACKS, FACEPLATE AND CABLING. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION.
	WALL MOUNTED AV OUTLET (4" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT. REFER TO FACEPLATE DETAILS. PROVIDE JACKS, FACEPLATE AND CABLING. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION. CUSTOM OUTLET IN SURFACE RACEWAY, OUTLET JACKS, FACEPLATE AND CABLING.
	TECHNOLOGY FLOOR BOX. PROVIDE APPROPRIATE CONNECTOR PLATE AND HINGED COVER. "1" INDICATES OUTLET TYPE. SUBSCRIPT "X" INDICATES ALTERNATE CONFIGURATION. REFER TO FACEPLATE DETAILS.

AV SYMBOLS

	SINGLE FACED, WALL MOUNTED CLOAK (102" MH UNLESS NOTED OTHERWISE). 12" DIAMETER FACE UNLESS SUBSCRIPT "15" FOR 15" DIAMETER FACE. SUBSCRIPT "W" INDICATES WIREGUARD.
	DOUBLE FACED, WALL MOUNTED CLOAK (102" MH UNLESS NOTED OTHERWISE). 12" DIAMETER FACE UNLESS SUBSCRIPT "12" FOR 12" DIAMETER FACE.
	FLAT PANEL DISPLAY WITH WALL MOUNTING HARDWARE (84" MH UNLESS NOTED OTHERWISE). # INDICATES NOMINAL SCREEN DIAGONAL SIZE.
	CEILING MOUNTED MANUAL PROJECTION SCREEN.
	WALL MOUNTED MANUAL PROJECTION SCREEN.
	CEILING MOUNTED PROJECTOR. SUBSCRIPT "X" INDICATES CONFIGURATION TYPE. REFER TO FACEPLATE DETAILS.
	CEILING MOUNTED PAGING/INTERCOM SYSTEM SPEAKER.
	HORN TYPE PAGING/INTERCOM SYSTEM SPEAKER (80" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, GROMMETED FACEPLATE, SPEAKER, INSTALLATION AND WIRING.
	SURFACE MOUNTED PAGING/INTERCOM SPEAKER (80" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "H" INDICATES HANGING CEILING SPEAKER. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, SPEAKER, INSTALLATION AND CABLING.
	PAGING/INTERCOM SYSTEM WALL MOUNTED SPEAKER VOLUME CONTROLLER (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX AND 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, VOLUME CONTROLLER WITH FACEPLATE, INSTALLATION AND WIRING.

SECURITY SYMBOLS

	CCTV SYSTEM CEILING MOUNTED CAMERA. REFER TO CAMERA SCHEDULE FOR MOUNTING HEIGHT AND CAMERA SPECIFICATIONS. SUBSCRIPT "X" INDICATES ENTRY IN CAMERA SCHEDULE.
	PROVIDE INTERFACE FROM CARD ACCESS SYSTEM INTO ELEVATOR CONTROLLER INCLUDING ALL NECESSARY HARDWARE, PROGRAMMING AND CABLING AS COORDINATED WITH ELEVATOR CONTRACTOR.
	GLASS BREAK.
	DESK MOUNTED INTERCOM MASTER STATION.
	CEILING MOUNTED MOTION DETECTOR.
	DESK MOUNTED PUSH BUTTON FOR LOCAL ELECTRONIC DOOR RELEASE.
	DESK MOUNTED PANIC/DURESS BUTTON.
	CCTV SYSTEM WALL MOUNTED CAMERA (REFER TO CAMERA SCHEDULE FOR MOUNTING HEIGHT AND CAMERA SPECIFICATIONS). SUBSCRIPT "X" INDICATES ENTRY IN CAMERA SCHEDULE. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, CAMERA AND CABLING.
	WALL MOUNTED PROXIMITY CARD READER (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING, CARD READER AND CABLING. REFER TO SECURITY ROUGH-IN DETAILS.
	ELEVATOR CAB MOUNTED CARD READER. READER TO BE INSTALLED IN ELEVATOR CAB AS COORDINATED WITH ELEVATOR CONTRACTOR. WIRING FROM CAB THRU TRAVELING CABLE TO ELEVATOR CONTROLLER IN ELEVATOR MACHINE ROOM AND INTERFACE WITH ELEVATOR CONTROLLER AND SMS. COORDINATE WITH ELEVATOR CONTRACTOR. REFER TO SECURITY ROUGH-IN DETAILS.
	LOCAL IP BASED 2-DOOR ACCESS CONTROL PANEL SERVING LOCAL CARD READER/SECURITY CONTROLLED DOORS. LOCATE ABOVE ADJACENT ACCESSIBLE CEILING. PROVIDE DATA DROP IN 0.75" CONDUIT TO LOCAL DATA CLOSET. EXTEND 1" CONDUIT WITH DOOR SECURITY WIRING TO LOCAL SECURITY SYSTEM JUNCTION BOX. REFER TO SECURITY ROUGH-IN DETAILS FOR WORK.
	DOOR POSITION SWITCH WITH WIRING. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. PROVIDE ONE CONTACT FOR EACH LEAF IN MULTI-DOOR OPENINGS. REFER TO SECURITY ROUGH-IN DETAILS.
	ELECTRONIC DOOR LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. REFER TO SECURITY ROUGH-IN DETAILS.
	ELECTRONIC MAG LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. REFER TO SECURITY ROUGH-IN DETAILS.
	ELECTRONIC STRIKE AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. REFER TO SECURITY ROUGH-IN DETAILS.
	WALL/PEDESTAL MOUNT HANDICAP DOOR ACTUATOR BUTTON, FURNISHED BY OTHERS. BOX AS REQUIRED BY SYSTEM MANUFACTURER WITH INSTALLATION AND CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. ALL LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR MOTOR. REFER TO SECURITY ROUGH-IN DETAILS.
	HANDICAP DOOR OPERATOR MOTOR ASSEMBLY BY OTHERS. 120V POWER CONNECTION AND CONDUIT FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR ACTUATOR BUTTONS. REFER TO SECURITY ROUGH-IN DETAILS.
	WALL MOUNTED INTERCOM DOOR STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, INTERCOM AND CABLING.
	SECURITY SYSTEM JUNCTION BOX TO BE LOCATED ABOVE ACCESSIBLE CEILING (MIN 6"x6"x4"). ROUTE LOCAL DOOR SECURITY WIRING CONDUITS/RACEWAYS TO JUNCTION BOX. EXTEND 1" CONDUIT WITH DOOR SECURITY WIRING TO LOCAL 2-DOOR CONTROL PANEL/REMOTE DOOR CONTROL PANEL AS INDICATED ON DRAWINGS. REFER TO SECURITY ROUGH-IN DETAILS FOR WORK.
	WALL MOUNTED SECURITY KEYPAD ENTRY STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING, KEYPAD AND CABLING.
	WALL MOUNTED COMBINATION KEYPAD/CARD READER (46" MH UNLESS NOTED OTHERWISE). 2-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING, DEVICE AND CABLING.
	CEILING MOUNTED MOTION DETECTOR. 1-GANG BOX MOUNTED IN CEILING, DETECTOR AND CABLING.
	WALL MOUNTED MOTION DETECTOR (80" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, MOTION DETECTOR, WALL MOUNT HARDWARE, AND CABLING.
	WALL MOUNTED PUSH BUTTON FOR LOCAL ELECTRONIC DOOR RELEASE (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, BUTTON AND CABLING.
	WALL MOUNTED PANIC/DURESS BUTTON (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING, BUTTON AND CABLING.
	LOCAL LOW VOLTAGE POWER SUPPLY FOR EXTERIOR CAMERA. SUBSCRIPT "X" INDICATES ASSOCIATED CAMERA. 120V POWER INTO LOCAL JUNCTION BOX ABOVE CEILING AND CONNECTION TO POWER SUPPLY, POWER SUPPLY MOUNTED ABOVE CEILING AND LOW VOLTAGE WIRING TO LOCAL CAMERA.
	REQUEST TO EXIT SWITCH IN DOOR HARDWARE BY OTHERS. LOW VOLTAGE WIRING. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING. REFER TO SECURITY ROUGH-IN DETAILS.
	WALL MOUNTED SECURITY SYSTEM WIRING OUTLET MOUNTED BELOW COUNTER TOP. 2-GANG BOX WITH 2-1" CONDUITS TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING, GROMMETED FACEPLATE AND SECURITY SYSTEM CABLING.

ELECTRICAL SYMBOLS

	DASH SYMBOL INDICATES PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
	EXISTING OUTLET OR DEVICE TO REMAIN. MAINTAIN EXISTING CIRCUITING.
	ELECTRICAL CONNECTION.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN.
	20A-125V DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, (18" MH UNLESS NOTED OTHERWISE) TWO GANG ASSEMBLY.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH BOTTOM OUTLET CONTROLLED BY WALL SWITCH (18" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (46" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE).
	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R (HORIZONTAL 18" MH UNLESS NOTED OTHERWISE) WITH WEATHERPROOF COVER, VERTICAL MOUNT.
	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE), WITH WEATHERPROOF COVER, VERTICAL MOUNT.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, ON EMERGENCY POWER (18" MH UNLESS NOTED OTHERWISE).
	20A-125V POWERLOCK GROUNDING TYPE RECEPTACLE, HOSPITAL USE (66" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX PEDESTAL TYPE FLOOR RECEPTACLE, PROVIDE CARPET FLANGE WHERE REQUIRED.
	20A-125V DUPLEX RECEPTACLE IN FLOOR BOX. PROVIDE CARPET FLANGE WHERE REQUIRED.
	20-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH ISOLATED GROUND (18" MH UNLESS NOTED OTHERWISE).
	20A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-30R (18" MH UNLESS NOTED OTHERWISE).
	30A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-30R (18" MH UNLESS NOTED OTHERWISE).
	50A-125/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-50R (18" MH UNLESS NOTED OTHERWISE).
	20A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-20R (18" MH UNLESS NOTED OTHERWISE).
	30A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-30R (18" MH UNLESS NOTED OTHERWISE).
	50A-250V-3PH-4W SINGLE RECEPTACLE, NEMA 15-50R (18" MH UNLESS NOTED OTHERWISE).
	JUNCTION BOX.
	MULTI-OUTLET RECEPTACLES ASSEMBLY, NEMA 5-15R (SINGLE OUTLETS ON 18" CENTERS) (46" MH UNLESS NOTED OTHERWISE).
	CLOCK HANGER OUTLET, SINGLE NEMA 5-15R RECESSED IN COVER PLATE (84" MH UNLESS NOTED OTHERWISE).
	SINGLE POLE SWITCH (46" MH UNLESS NOTED OTHERWISE).
	TWO POLE WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	THREE-WAY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	FOUR-WAY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	SWITCH WITH NEON PILOT LIGHT, ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
	KEY OPERATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	LOW-VOLTAGE MOMENTARY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	LIGHTING DIMMER SWITCH (46" MH UNLESS NOTED OTHERWISE) 1000 WATTS UNLESS OTHERWISE INDICATED.
	SWITCH WITH RECEPTACLE (46" MH UNLESS NOTED OTHERWISE) STANDARD TWO-GANG ASSEMBLY OF SWITCH AND RECEPTACLE.
	FLUSH FRACTIONAL HORSEPOWER MOTOR STARTER WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
	HP RATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	ELECTRICAL PANEL OR SWITCHBOARD PER DRAWINGS.
	PULL BOX.
	DISCONNECT SWITCH.
	MOTOR STARTER.
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH.
	ELECTRIC MOTOR.
	UNIT HEATER.
	FAN COIL.
	AIR CONDITIONER.
	CONDENSING UNIT.
	UNIT VENTILATOR.
	CORD REEL.
	POWER POLE.
	LINE VOLTAGE THERMOSTAT.
	DUCT HEATER.
	ELECTRIC BASEBOARD HEATER.
	INTERCOM SYSTEM DESK MOUNTED MASTER CONTROL STATION. SUBSCRIPT "W" INDICATES WALL MOUNT (46" MH UNLESS NOTED OTHERWISE).
	INTERCOM STAFF STATION (46" MH UNLESS NOTED OTHERWISE).
	INTERCOM HORN TYPE SPEAKER (84" MH UNLESS NOTED OTHERWISE).
	INTERCOM SPEAKER FLUSH MOUNT IN CEILING.
	PUSHBUTTON (46" MH UNLESS NOTED OTHERWISE).
	BUZZER (80" MH UNLESS NOTED OTHERWISE).
	4" DIAMETER BELL (90" MH UNLESS NOTED OTHERWISE).
	ELAPSED TIME INDICATOR CLOCK (90" MH UNLESS NOTED OTHERWISE) WITH RESET SWITCH (46" MH UNLESS NOTED OTHERWISE).
	PHOTOELECTRIC SENSOR.
	LIGHTING CONTACTOR.
	CEILING MOUNTED OCCUPANCY SENSOR.
	WALL MOUNTED OCCUPANCY SENSOR.
	CEILING MOUNTED DAYLIGHT SENSOR.
	OCCUPANCY SENSOR POWER PACK.

FIRE ALARM SYMBOLS

	FIRE ALARM CONTROL PANEL.
	FIRE ALARM SPEAKER & SIGNAL LIGHT (80" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
	FIRE ALARM BELL & SIGNAL LIGHT (80" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
	FIRE ALARM CHIME & SIGNAL LIGHT (80" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
	FIRE ALARM HORN & SIGNAL LIGHT (80" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
	FIRE ALARM SIGNALING LIGHT (80" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
	CEILING MOUNTED FIRE ALARM SPEAKER.
	FIRE ALARM MANUAL STATION (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "K" INDICATES KEY OPERATED.
	CEILING MOUNTED SMOKE DETECTOR.
	CEILING MOUNTED HEAT DETECTOR.
	DUCT MOUNTED SMOKE DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
	DUCT MOUNTED HEAT DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
	ELECTRIC RELEASE DOOR CLOSER.
	ELECTRO-MAGNETIC DOOR HOLDER.
	WATER FLOW SWITCH.
	VALVE SUPERVISORY SWITCH.
	DUCT MOUNTED DETECTOR REMOTE TEST STATION AND ALARM INDICATOR LIGHT. SUBSCRIPT "W" INDICATES WALL MOUNTED.
	SMOKE DAMPER.
	FIRE FIGHTER'S TELEPHONE (80" MH UNLESS NOTED OTHERWISE).
	PRESSURE SWITCH.
	ADDRESSABLE MODULE. SUBSCRIPT "I" INDICATES INPUT. SUBSCRIPT "C" INDICATES CONTROL.
	POST INDICATOR VALVE.
	KNOX BOX.

LUMINAIRE SYMBOLS

	LIGHTING FIXTURE. CAPITAL LETTER DENOTES FIXTURE TYPE. LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
	LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY CIRCUIT.
	EXIT LIGHTING FIXTURE. ARROWS AS INDICATED.

NURSE CALL SYMBOLS

	NURSE CALL CONTROL PANEL.
	NURSE CALL DESK MOUNTED MASTER CONTROL STATION (OUTLET AT 18" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "W" INDICATES WALL MOUNT (46" MH UNLESS NOTED OTHERWISE).
	NURSE CALL STAFF STATION (46" MH UNLESS NOTED OTHERWISE).
	NURSE CALL DUTY STATION (46" MH UNLESS NOTED OTHERWISE).
	NURSE CALL STATION WITH PULL CORD FOR PATIENT USE (32" MH IN TOILET ROOMS, 90" M.H. IN SHOWERS AND WET AREAS. 46" MH UNLESS NOTED OTHERWISE IN ALL OTHER AREAS).
	PATIENT NURSE CALL UTILITY CONSOLE (46" MH UNLESS NOTED OTHERWISE).
	PATIENT NURSE CALL STATION (ONE OR TWO CORDS AS INDICATED, 46" MH UNLESS NOTED OTHERWISE).
	CEILING MOUNTED NURSE CALL DOME LIGHT.
	WALL MOUNTED NURSE CALL DOME LIGHT (80" MH UNLESS NOTED OTHERWISE).
	CEILING MOUNTED COMBINATION DOME LIGHT AND BUZZER.
	CEILING MOUNTED NURSE CALL ZONE LIGHT.
	NURSE CALL EMERGENCY BUTTON (46" MH UNLESS NOTED OTHERWISE).
	EMERGENCY CODE BLUE BUTTON (46" MH UNLESS NOTED OTHERWISE).

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS.

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

ABBREVIATIONS

AP	- AREA ALARM PANEL - MEDICAL GAS	ID	- INSIDE DIAMETER
ACC	- ACCESS	IN	- INCHES
ADJ	- ADJUSTABLE	KEC	- KITCHEN EQUIPMENT CONTRACTOR
AF	- ARC FAULT CIRCUIT INTERRUPTER	L	- LENGTH
AFG	- ARC FAULT CIRCUIT INTERRUPTER	LBS	- POUNDS
AFS	- ABOVE FINISHED FLOOR TO BOTTOM OF ITEM	MAP	- MASTER ALARM PANEL (MEDICAL GAS)
AFB	- ABOVE FINISHED GRADE TO BOTTOM OF ITEM	MAX	- MAXIMUM
ALT	- ALTERNATE	MEZZ	- MEZZANINE
AP	- ACCESS PANEL	MFR	- MANUFACTURER
APPROX	- APPROXIMATE	MHW	- MARKING OR MOUNTING HEIGHT TO CENTER LINE OF ITEM
ARCH	- ARCHITECT OR ARCHITECTURAL	MIN	- MINIMUM OR MINUTE
ASSY	- ASSEMBLY	MISC	- MISCELLANEOUS
ATS	- AUTOMATIC TRANSFER SWITCH	MTO	- MOUNTED
BLDG	- BUILDING	MTG	- MOUNTING
BOE	- BOTTOM OF EQUIPMENT	NIC	- NOT IN CONTRACT
BOT	- BOTTOM	NOM	- NOMINAL
BTWN	- BETWEEN	NTS	- NOT TO SCALE
CFCI	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED	OD	- OUTSIDE DIAMETER
CKT	- CIRCUIT	OFI	- OWNER FURNISHED CONTRACTOR INSTALLED
CLG	- CEILING	OFIO	- OWNER FURNISHED OWNER INSTALLED
CMU	- CONCRETE MASONRY UNIT	PC	- PLUMBING CONTRACTOR (DIVISION 22)
CONN	- CONNECT OR CONNECTION	PLBG	- PLUMBING
CONTR	- CONTRACTOR	RAD	- RADIUS
CORR	- CORRIDOR	REC	- RECESSED
COR	- CONTRACTING OFFICER'S REPRESENTATIVE	REQD	- REQUIRED
D	- DEPTH	RI	- ROUGH-IN
DET	- DETAIL	S	- SURFACE MOUNTED
DET	- DETAIL	SC	- SECURITY CONTRACTOR
DIAM	- DIAMETER	SCD	- SCHEDULE
DIM	- DIMENSION	SHT	- SHEET
DN	- DOWN	SMS	- SECURITY MANAGEMENT SYSTEM
DWG	- DRAWING	SP	- SPECIFICATIONS
EA	- EACH	SO	- SQUARE
EC	- ELECTRICAL CONTRACTOR (DIVISION 26)	SS	- STAINLESS STEEL
EJ	- EXPANSION JOINT	STD	- STANDARD
ELEC	- ELECTRICAL	STRUC	- STRUCTURAL OR STRUCTURE
ELEV	- ELEVATION OR ELEVATOR	SUC	- SITE UTILITY CONTRACTOR
EM	- EMERGENCY	TC	- TECHNOLOGY CONTRACTOR
EQU	- EQUIPMENT SUPPLIER	TEMP	- TEMPERATURE
EQUIP	- EQUIPMENT	TOP	- TOP OF EQUIPMENT
ETR	- EXISTING TO REMAIN	TYP	- TYPICAL
EX	- EXISTING	UNO	- UNLESS NOTED OTHERWISE
EXP	- EXPANSION	VFD	- VARIABLE FREQUENCY DRIVE
EXT	- EXTERIOR	VOL	- VOLUME
EXR	- EXISTING TO BE RELOCATED	W	- WITH
FCE	- FIRE CONTROL EQUIPMENT	W/O	- WITHOUT
FF	- FINISHED FLOOR ELEVATION	WP	- WEATHERPROOF
FIB	- FIBER	ZVC	- ZONE VALVE CABINET
FIS	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)		
FT	- FEET		
FTG	- FOOTING		
FR	- FINISHED TO BE RELOCATED		
GC	- GENERAL CONTRACTOR		
GF	- GROUND FAULT CIRCUIT INTERRUPTER		
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER OR GOVERNMENT FURNISHED CONTRACTOR INSTALLED		
GFFT	- GROUND FAULT FEED THRU		
HC	- HVAC CONTRACTOR (DIVISION 23)		
HP	- HORSE POWER OR HIGH POINT		
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING		

GENERAL FLOOR PLAN NOTES

	DETAIL: B = DETAIL DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
	SECTION: 1 = SECTION DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN.
	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
	CABLE TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
	WIRE & CONDUIT IN WALL OR ABOVE CEILING.
	WIRE & CONDUIT IN OR BELOW SLAB OR GRADE.
	CONDUIT TO BE REMOVED.
	EXISTING WIRE & CONDUIT TO REMAIN.
	CONDUIT FOR DATA CIRCUITRY.
	WIRE & CONDUIT FOR EMERGENCY CIRCUITRY.

